

Serial No.: 09/890,027
Art Unit: 1734
Examiner: M. Lazor
Date: August 25, 2003

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A color changing apparatus for multiple color coating of conductive coating material, wherein a first pipe joint a2 is provided to be movable on a guide rail 4 and an electrostatic spray device 4 connected to the said first pipe joint a2 through a pipeline 7 are provided; a plurality of coating material supply circulation circuits are provided, each including a respective liquid tank 11 for holding a coating material source, a pump 12 and a movable second pipe joint b13 disengageably that can be selectively engaged with the said first pipe joint a2, the liquid tank 11 and the pump 12 and the said second pipe joint b13 being connected through a pipeline: wherein when said first pipe joint is selectively engaged with one of said plurality of second pipe joints and the said first pipe joint a2 and the the others of said plurality of second pipe joint b13 in the plurality of coating material supply circulation circuits are selectively disengaged from each other.
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2. (Currently Amended) The apparatus of claim 1 wherein at least one of said liquid tanks 11 is for holding a source of electrically conductive, coating material, said at least one liquid tank is selectively insulable from ground.
3. (Currently Amended) The apparatus of claim 2 further comprising a power supply 5 for applying an electric charge to said electrically conductive coating material discharged from said spray device 4 and a voltage block which electrically isolates said liquid tank which is transmitting the electrically conductive coating material to said spray device from electrical ground.
4. (Currently Amended) The apparatus of claim 3 wherein said voltage block electrically isolates from said spray device 4 said liquid tanks which are not transmitting coating material to said spray device.
5. (Original) The apparatus of claim 1 further comprising a relay for each of said supply

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REMARKS

In the Office action the claims were objected to for including reference characters without parentheses; claims 1-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Carbonetti in view of Shaffer; claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Carbonetti in view of Shaffer and Marietta; claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Carbonetti in view of Shaffer and Matushita; and claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Carbonetti in view of Shaffer and Platsch.

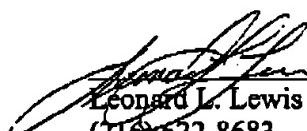
The claims have been amended to delete the reference characters to conform more closely with conventional US practice. Claim 1 has been further amended to remove ambiguity that would otherwise be present in view of the deleted reference numerals.

As to the rejections on the merits, claim 1 recites that the second pipe joints are movable. The art of record makes no suggestion or motivation of this aspect of the invention. The new dependent claims 12 and 13 have been added to recite additional features of the present invention. Applicants further respectively traverse the rejections of the dependent claims, but will defer comment pending further examination of the claims as amended. New independent claim 14 is directed to an apparatus in which at least one of the plurality of second pipe joints is electrically grounded when disengaged from the first pipe joint and electrically ungrounded when engaged. The art of record does not suggest such a combination.

It is respectfully submitted that the application is in condition for allowance.

Respectfully submitted,

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circulation circuits, wherein each of the liquid tanks is selectively electrically insulable from ground and selectively groundable.

6. (Original) The apparatus of claim 1 further comprising a drive for moving the guide rail.

7. (Original) The apparatus of claim 6 wherein the drive comprises a hydraulic operable cylinder.

8. (Currently Amended) The apparatus of claim 1 further comprising a check valve for each of said pipe joints, such that coating material flow is allowed when the said first pipe joint ~~a2~~ is connected with a respective one of said plurality of second pipe joints ~~b13~~ and coating material flow is automatically stopped when the respective connected pipe joints ~~a2, b13~~ are disconnected.

9. (Original) The apparatus of claim 1 wherein each supply circulation circuit further comprises a pressure adjusting valve and circulation valve.

10. Cancelled

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11. Cancelled

12. (New) The apparatus of claim 1 wherein each said movable second pipe joint moves in a direction that is generally transverse a direction of movement of said first pipe joint to engage therewith and disengage therefrom.

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13. (New) The apparatus of claim 12 wherein at least one of said movable second pipe joint is electrically grounded when disengaged from said first pipe joint and electrical ungrounded when engaged with said first pipe joint.

14. (New) A color changing apparatus for multiple color coating of conductive coating material, wherein a first pipe joint is provided to be movable on a guide rail and an electrostatic spray device connected to said first pipe joint through a pipeline are provided; a plurality of coating material supply circulation circuits are provided, each including a respective liquid tank for holding a coating material source, a pump and a second pipe joint that can be selectively